| Index | J. J. |  |
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| Application No. | Applicant(s)   |  |
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| 10/733,930      | RICKERT ET AL. |  |
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| ı | Interference |

Nathan S Mammen

| A | Appeal   |
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| E     D      | Cla      | aim | Date     |              |          |                |          |  |          | Date Claim Date |                |          |     |                |          |          | Claim Date |            |           |           |        |     |  |            |          |          | _         |           |          |          |          |          |   |
|--|----------|-----|----------|--------------|----------|----------------|----------|--|----------|-----------------|----------------|----------|-----|----------------|----------|----------|------------|------------|-----------|-----------|--------|-----|--|------------|----------|----------|-----------|-----------|----------|----------|----------|----------|---|
| 1  |          |     | _        | Γ            | Г        | Г              | Γ        | Π  | Π        |                 |                |          |     |                |          |          |            | T          |           |           | T      |     |  |            | $\neg$   | Т        | T         | $\exists$ |          |          | П        | Т        |   |
| 1  | <u></u>  | ina | 2        | l            |          |                | 1        |  | 1        |                 |                | ā        | i.  |                |          | - 1      |            |            |           |           |        |     | ब्र  | i <u>ë</u> |          |          |           |           | l        |          |          |          |   |
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| 10   |          | 0   | 2        |              |          | l              |          |  |          |                 |                |          | 0   |                |          |          |            | - 1        |           |           |        |     |  | 0          |          | - 1      |           | 1         | - 1      |          | - 1      | - 1      |   |
| 2  |          | 1   | 1        | -            |          | $\vdash$       | T        | Г  | Т        | Т               |                |          | 51  |                |          |          | $\neg$     | $\neg$     | $\neg$    | T         |        | 1   |  | 101        |          | $\neg$   | П         | _         |          |          | T        | T        | Т |
| S  |          |     |          |              |          | 1              | T        | T  | $\vdash$ |                 |                |          |     |                |          |          | $\neg$     | $\neg$     | $\neg$    | 7         |        | 1   |  | 102        | 7        | $\neg$   |           | $\neg$    |          |          | 丁        | $\neg$   |   |
| 4     \( \)     \( |          |     | 7        |              |          | Г              | T        | Г  | T        |                 |                |          |     |                |          |          |            | $\neg$     |           |           |        | 1   |  |            | $\neg$   | $\top$   | $\exists$ | $\neg$    |          |          | T        | T        |   |
| 5  |          |     | _        |              |          | Г              | Т        | Π  | Т        |                 | П              |          | 54  |                |          |          | $\neg$     |            | $\exists$ | $\top$    |        | 1   |  | 104        |          | $\neg$   | T         | $\neg$    |          |          |          | $\neg$   |   |
| 106  |          | 5   |          |              |          |                |          | Г  | $\vdash$ |                 |                |          |     |                |          |          |            | $\neg$     | $\neg$    | $\neg$    | $\neg$ | 1 1 |  | 105        |          |          | T         | T         |          |          |          | Т        |   |
| 108  |          |     | 1        |              |          |                |          |  | Т        |                 |                |          | 56  |                |          |          | $\neg$     |            | $\neg$    |           |        | ]   |  |            |          | $\neg$   | T         | П         |          |          | $\Box$   | Т        |   |
| S   A  |          | 7   | 7        |              |          | Г              | П        |  |          |                 |                |          | 57  |                |          |          |            | П          | П         | Т         |        | ]   |  |            |          |          |           |           |          |          |          |          |   |
| 10   |          | 8   | 1        |              |          | Г              | Τ        | Γ  | Г        |                 |                |          |     |                |          |          | $\Box$     |            |           | $\top$    |        | ]   |  | 108        |          |          |           |           |          |          |          | $\Box$   |   |
| 10   |          | 9   | 4        |              |          | Г              |          | Г  | П        |                 |                |          | 59  |                |          |          |            |            |           | П         |        | ]   |  |            |          |          |           |           |          |          |          |          |   |
| 12   |          | 10  | 4        |              |          |                |          | Ī  |          |                 |                |          |     |                |          |          | $\Box$     |            |           | $\Box$    |        | ]   |  |            |          |          |           |           |          |          |          |          |   |
| 13   |          | 11  | 2        |              |          |                |          | Г  |          |                 |                |          | 61  |                |          |          |            |            |           |           |        | ]   |  | 111        |          |          |           |           |          |          |          |          |   |
| 14   \$   \$   \$   \$   \$   \$   \$   \$   \$  |          |     | v        |              |          |                |          | $\Box$   |          |                 |                |          |     |                |          |          |            | $\Box$     |           | $oxed{I}$ |        |     |  |            | $\Box$   |          | $\Box$    |           |          |          |          |          |   |
| 15   |          | 13  |          |              |          |                |          |  |          |                 |                |          |     |                |          |          |            |            |           | $\perp$   |        |     |  | 113        | $\Box$   | $\perp$  | $\Box$    | $\Box$    |          | $\Box$   |          | $\Box$   |   |
| 116  |          | 14  | 7        |              |          |                |          |  |          |                 |                |          | 64  |                |          |          |            | $\Box$     |           |           |        |     |  |            |          | $\bot$   | $\perp$   |           |          |          | _[       | $\perp$  |   |
| 17   | _        |     | 1        |              |          |                |          |  |          |                 |                |          |     |                |          |          |            | $_{\perp}$ |           |           |        |     |  | 115        |          | $\perp$  |           |           |          |          | _        | _        |   |
| 18   19   68   118   119   118   119   119   119   120   120   120   121   121   122   122   122   122   122   122   122   122   122   122   122   122   122   122   122   122   122   123   123   123   124   124   124   125   125   125   125   125   125   125   125   125   125   126   127   127   127   127   128   129   129   129   129   129   129   130   130   131   130   131   131   132   133   133   133   131   131   132   133   133   133   133   133   133   133   133   133   133   133   133   134   134   134   134   134   134   134   134   134   134   134   134   134   134   134   135   135   135   136   136   137   137   137<  |          |     |          |              | Ĺ        | $\Box$         |          |  |          |                 |                |          | 66  | 匚              |          |          |            |            | [         | $\perp$   |        |     |  |            | $\perp$  | $\perp$  | $\perp$   |           | _        | _        |          | $\bot$   |   |
| 19   |          |     |          |              | L        |                |          |  |          |                 | Ш              |          |     | L              |          |          | _          | _          | _         | 4         |        |     |  |            | $\dashv$ | _        | 4         | _         |          | _        | 4        | 4        |   |
| 120  |          |     |          | _            | _        | _              |          |  |          | L               | Ш              |          |     | 乚              |          |          |            | _          | _         | $\perp$   |        |     |  |            |          | _        | _         |           | _        | $\perp$  | 4        | _        |   |
| 21   22   121   72   122   123   123   123   124   122   123   124   124   124   124   124   125   125   125   125   126   126   127   127   127   127   127   127   127   127   127   128   129   129   130   130   130   130   130   130   130   130   130   131   131   131   131   131   132   132   133   133   133   133   133   133   133   133   133   133   133   133   133   133   133   133   133   133   133   134   134   134   134   134   134   134   134   134   135   135   136   137   137   138   139   139   139   139   139   139   139   139   139   140   141   141   141   142   143   144   144   144   144   144   144   144   144<  |          |     |          | <u> </u>     |          |                |          |  |          | L               | Ш              |          |     | L              |          |          |            | _          | _         | _         |        | ļ   |  | 119        |          | _        | _         | _         | _        | $\dashv$ | 4        | _        |   |
| 22     3     122     123     123     123     124     124     124     124     125     125     125     125     126     125     126     126     127     127     127     127     128     129     129     129     129     129     130     130     130     131     131     132     132     132     133     133     133     133     133     133     133     134     135     136     136     136     136     136     136     136     136     136     136     136     136     137     138     138     139     139   |          |     |          | L            | L        | _              | <u></u>  |  |          | L               | Ш              |          |     | L              |          |          |            | _          | _         | _         |        |     |  |            | _        | _        | 4         | _         | _        | _        | _        | $\dashv$ | _ |
| 23     123     123     124     124     124     125     126     125     126     126     126     126     126     126     127     127     127     127     128     128     129     129     129     130     130     130     130     130     131     131     131     131     131     131     131     132     132     132     133     133     133     133     133     133     133     133     134     135     135     135     135     135     135     135     135     136     136     136     136     137     137     137     137     137     138     138     138     138     138     138     139     140     141     140     141     141     141   |          |     | L        |              |          |                | <u> </u> |  | L        |                 | Ш              |          |     | L              |          |          | _          | _          | 4         | 4         |        |     |  | 121        | $\dashv$ | _        | 4         |           |          | _        | $\dashv$ | $\dashv$ |   |
| 24     124     124     125     125     126     125     126     126     126     126     126     127     127     127     127     128     129     129     129     129     129     130     130     130     130     131     131     131     131     131     132     132     132     132     133     133     133     133     133     133     134     134     134     134     134     134     134     134     134     134     135     136     137     137     136     137     137     138     138     138     138     138     138     138     138     139     139     140     141     141     141     141     142     142     143     144     144     144     144     144     144     144     144     144     145     146     146     146     147     147     147     148     149     149     149     149   |          | 22  | _        | L            |          | <u>_</u>       | L        | <u>_</u>   | _        | L               |                |          |     | 乚              |          |          | _          | _          | $\dashv$  | 4         |        |     |  |            | _        | _        | _         | _         | _        | _        | _        | _        |   |
| 25     75     125     126     126     126     127     127     127     127     127     127     127     127     128     128     128     128     129     129     130     130     130     131     131     131     131     131     131     132     132     132     132     132     133     133     133     133     133     133     133     133     134     134     134     134     134     134     135     135     136     137     137     137     137     137     137     137     138     138     138     138     138     139     140     140     140     141     141     142     142     142     142     142     142     142     143     144     144     144     145     146     146     146     147     147     147     147     147     148     148     148     149     149     149     149     149  |          |     | _        |              |          | 乚              |          | L  | <u> </u> |                 |                |          |     | L              | $\Box$   |          | _          | _          | _         | $\perp$   |        |     |  | 123        | _        | 4        | 4         |           | _        | _        | _        | $\dashv$ |   |
| 26   76   126   127   127   127   128   127   128   128   128   129   129   129   130   130   131   131   131   131   131   131   131   132   132   132   132   133   133   133   133   133   133   134   134   134   134   135   135   136   136   136   137   138   138   138   138   138   138   138   139   140   141   141   142   143   144   144   144   144   144   144   144   145   145   146   147   148   148   148   149  |          | 24  | _        | 乚            | _        | _              | <u> </u> | <u> </u>   | <u> </u> |                 |                |          | 74  | L              |          |          |            | _          | 4         | 4         | _ _    |     |  | 124        | 4        | _        | 4         | _         | _        | _        | -        | _        |   |
| 27     127       28     78       29     128       30     80       31     81       32     83       33     83       34     84       35     85       36     136       37     88       39     89       40     90       41     91       42     92       43     94       44     94       45     96       46     96       47     98       49     99   |          |     | _        | L            |          |                |          | <u>Ļ</u>   | _        | L               | Ш              |          |     | _              | _        |          | _          | _          | $\dashv$  | 4         |        |     | <u> </u>   |            | _        | _        | _         |           | _        | _        | _        | _        |   |
| 28     78     128       29     129     129       30     80     130       31     81     131       32     83     132       33     83     133       34     84     134       35     86     135       36     86     136       37     87     137       38     88     138       39     90     140       41     91     141       42     92     142       43     93     143       44     94     144       45     96     146       47     97     147       48     98     148       49     99     149   |          |     | _        |              |          | <u> </u>       | ļ        | _  | _        | ╙               | Ш              | <u> </u> |     |                |          |          | _          | _          | 4         | _         |        |     |  | 126        | _        | _        | 4         | _         | _        | $\dashv$ | $\dashv$ | $\dashv$ | _ |
| 29 79   30 80   31 81   32 82   33 83   34 84   35 85   36 86   37 88   39 89   40 90   41 91   42 92   43 93   44 94   45 96   46 96   49 99   148 98   149   |          |     | <u> </u> | _            | _        | _              | ├-       | ┞  | 1_       | <u> </u>        | $\square$      | <u> </u> |     | L.             | _        |          | _          | _          | -         | -         | _      |     |  | 127        | -        | -        | -         | _         | $\dashv$ |          | $\dashv$ | $\dashv$ | _ |
| 30 80   31 81   32 82   33 83   34 84   35 85   36 86   37 87   38 88   39 89   40 90   41 91   42 92   43 93   44 94   44 94   44 94   45 96   46 96   48 98   49 148   49 99   |          |     | <u> </u> | <u> </u>     | _        | _              | ╙        | _  | 1        | <u> </u>        | $\square$      | <u> </u> | 78  | L              |          |          | -          |            |           | $\dashv$  |        | -   |  |            |          | $\dashv$ | -         |           | $\dashv$ | $\dashv$ | -        | -+       | _ |
| 31   81   131   132     32   83   132   133     34   84   134   134     35   86   135   136     36   86   136   137     38   88   138   139     40   90   140   141     41   91   141   141     42   92   142   142     43   94   144   144     45   95   145   146     46   96   146   146     47   98   148   149  |          |     | <u> </u> | ļ            |          |                | <u> </u> | _  | ļ.,      | <u> </u>        | Н              |          |     | <u> </u>       |          |          |            | -1         | $\dashv$  | $\dashv$  | +      | -   |  |            |          | _        | -         |           | -        | -        | +        | $\dashv$ |   |
| 32   82   132   133     33   84   133   134     35   85   135   135     36   86   136   137     38   87   137   137     38   88   138   138     39   90   140   141     41   91   141   141     42   92   142   142     43   94   144   144     44   94   144   144     45   96   146   147     48   98   148   148     49   99   149   149  |          |     | <u> </u> | <u> </u>     | _        | <u> </u>       | _        | ┞.   | ╄        | <u> </u>        | Н              |          |     | L              | -        |          |            |            | $\dashv$  | +         |        |     | <u> </u>   |            |          | _        | -         | -         | _        |          | $\dashv$ | $\dashv$ |   |
| 33   83   133   134     35   85   135   135     36   86   136   137     38   87   137   137     38   88   138   138     39   89   139   139     40   90   140   141     41   91   141   142     43   93   143   143     44   94   144   144     45   96   146   146     47   97   147   148     48   98   148   148     49   99   149   149  |          |     | <u> </u> | _            | _        | <del> </del> _ | ⊬        |  | $\vdash$ | ⊢               | Н              |          |     | ⊢              |          |          |            | 1          | -         |           | -      | ł   | <u> </u>   |            | $\dashv$ | +        | -         |           |          | -        | $\dashv$ | $\dashv$ | _ |
| 34   84   134   135     35   86   135   136     37   87   137   137     38   88   138   138     39   89   139   139     40   90   140   141     41   91   141   141     42   92   142   142     43   93   143   144     44   94   144   144     45   95   145   146     46   96   146   147     48   98   148   148     49   99   149   149  |          |     | <u> </u> | <del> </del> | _        | <u> </u>       | ╀        | <b>├</b> —                                       | +        | ⊢               | $\vdash$       |          |     | ├-             | -        | $\vdash$ |            |            | $\dashv$  | $\dashv$  |        | ┨   |  |            | -        | $\dashv$ | ┥         | $\dashv$  | -        | $\dashv$ | $\dashv$ | $\dashv$ | _ |
| 35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  |          |     | <u> </u> | 1            | <u> </u> | -              | ╀        | ⊢  | -        | ├-              | $\vdash$       |          |     | <del>  -</del> | $\vdash$ |          | -          | -          | $\dashv$  | -         | +      | -   | <del> </del>                                     |            | $\dashv$ | +        | $\dashv$  |           |          | +        | $\dashv$ | $\dashv$ |   |
| 36   86   136     37   87   137     38   88   138     39   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  |          |     | _        | $\vdash$     | $\vdash$ | -              | ┼-       | ┼—   | -        | $\vdash$        | $\vdash$       |          |     | -              | $\vdash$ |          | -          | -          | $\dashv$  | -         | +      | {   |  | 134        | $\dashv$ | $\dashv$ | $\dashv$  |           | $\dashv$ | -+       | $\dashv$ | $\dashv$ |   |
| 37   87   137     38   88   138     39   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | -        |     | <u> </u> | ├            | ⊢        | $\vdash$       | +        | ₩  | +-       | ├-              |                | -        |     |                | $\vdash$ | -        |            |            | -         | +         | +      | 1   |  |            | $\dashv$ | -        | +         | -         | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | _ |
| 38   88   138     39   90   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | -        |     | -        | -            | -        | ├              | $\vdash$ | $\vdash$   | ⊢        | ├-              | $\vdash$       | -        |     | -              | $\vdash$ | -        |            | $\dashv$   | $\dashv$  | +         | +      | 1   | -  |            | $\dashv$ | $\dashv$ | +         |           |          | $\dashv$ | $\dashv$ | $\dashv$ | — |
| 39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  |          |     | $\vdash$ | $\vdash$     | $\vdash$ | -              | ┼-       | ┼  | ╁        | -               | $\vdash\vdash$ | $\vdash$ |     | H              | -        | $\vdash$ | 1          |            | $\dashv$  | +         | +      | {   |  |            |          | +        | +         | $\dashv$  | $\dashv$ | $\dashv$ | +        | $\dashv$ |   |
| 40 90   41 91   42 92   43 93   44 94   45 95   46 96   47 97   48 98   49 99  | <b>—</b> |     | -        |              | -        |                | +-       | 1-   | ⊬        | ├               | $\vdash$       | $\vdash$ |     | H              | $\dashv$ | -        | $\dashv$   |            | $\dashv$  | +         | +      | 1   | <del> </del>                                     |            | $\dashv$ | +        | $\dashv$  |           | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ |   |
| 41 91   42 92   43 93   44 94   45 95   46 96   47 97   48 98   49 99  |          |     | ⊢        | $\vdash$     | ⊢        | ╁              | ╁        | -  | +-       | ├               | $\vdash$       | -        | 00  | H              | $\vdash$ |          | $\dashv$   | -          | $\dashv$  | +         | +      | 1   |  |            | $\dashv$ | $\dashv$ | $\dashv$  |           | -        | $\dashv$ | $\dashv$ | $\dashv$ | — |
| 42 92   43 93   44 94   45 95   46 96   47 97   48 98   49 99  | -        |     | -        | ├            | ├        | ⊢              | +        | $\vdash$   | +        | $\vdash$        | $\vdash$       | -        |     | $\vdash$       | $\vdash$ |          | -          | -          | +         | $\dashv$  | +      | 1   | $\vdash$   |            | +        | +        | $\dashv$  | -         | $\dashv$ | +        | -+       | $\dashv$ | _ |
| 43 93 143   44 94 144   45 95 145   46 96 146   47 97 147   48 98 148   49 99 149  |          |     | $\vdash$ | $\vdash$     | $\vdash$ | $\vdash$       | $\vdash$ | $\vdash$   | ╁╌       | ╁               | $\vdash$       | -        |     | $\vdash$       | $\vdash$ | $\vdash$ |            | -          | $\dashv$  | +         | +      | 1   | <del>                                     </del> | 142        | $\dashv$ | +        | +         |           | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | _ |
| 44 94 144   45 95 145   46 96 146   47 97 147   48 98 148   49 99 149  |          |     | $\vdash$ | -            | ├        | -              | ╁        | $\vdash$   | ╁        | $\vdash$        | $\vdash$       | -        |     | $\vdash$       | $\vdash$ | $\dashv$ | $\dashv$   | $\dashv$   | $\dashv$  | $\dashv$  |        | 1   |  | 143        | $\dashv$ | $\dashv$ | +         | -         | -        | $\dashv$ | $\dashv$ | $\dashv$ | _ |
| 45 95   46 96   47 97   48 98   49 99  |          | 43  | $\vdash$ |              | $\vdash$ | -              | ╁╌       | $\vdash$   | ╁╾       | $\vdash$        | $\vdash$       | $\vdash$ | 94  | $\vdash$       | $\dashv$ |          | ᅱ          |            | $\dashv$  | $\dashv$  | +      |     | $\vdash$   |            | $\dashv$ | +        | +         |           |          | $\dashv$ | $\dashv$ | $\dashv$ |   |
| 46 96   47 97   48 98   49 148   |          |     | $\vdash$ | ┢            | 一        | -              | ╁╌       | +  | ╁        | $\vdash$        | $\vdash$       | -        |     | Н              | $\vdash$ | -        | $\dashv$   |            | $\dashv$  | +         |        | 1   |  |            | $\dashv$ | $\dashv$ | +         | -         | -        | $\dashv$ | $\dashv$ | $\dashv$ | _ |
| 47 97 147   48 98 148   49 99 149  |          |     | $\vdash$ | $\vdash$     | $\vdash$ | ╁              | $\vdash$ | +-   | ╁╌       | 1               | $\vdash$       |          |     |                | $\vdash$ | -        | ᅥ          | ᅱ          | $\dashv$  | $\dashv$  |        | 1   | <b></b>  |            | $\dashv$ | $\dashv$ | +         |           | -        | $\dashv$ | $\dashv$ | $\dashv$ | _ |
| 48 98   49 148   149 149   |          |     | $\vdash$ | $\vdash$     | $\vdash$ | -              | $\vdash$ | $\vdash$   | H        |                 | $\vdash$       | -        | 97  | $\vdash$       |          | -        | $\dashv$   | 一          | +         | ┰         | _      | 1   |  | 147        | $\dashv$ | $\dashv$ | $\dashv$  | 一         | $\neg$   | $\dashv$ | $\dashv$ | $\dashv$ |   |
| 49 99 149 149  | <b>—</b> |     | $\vdash$ | -            | $\vdash$ | -              | +        | $\vdash$   | ╁        |                 | $\vdash$       | -        |     | $\vdash$       | $\vdash$ | -        | $\dashv$   | $\dashv$   | +         | -+-       | +      | 1   |  |            | $\dashv$ | $\dashv$ | +         | $\dashv$  | $\dashv$ | +        | $\dashv$ | $\dashv$ | _ |
|  | <b>—</b> |     | $\vdash$ | $\vdash$     | $\vdash$ | -              | 十        | <del>                                     </del> | $t^-$    |                 | $\vdash$       |          | 99  | $\vdash$       |          | $\dashv$ | $\dashv$   |            | +         | +         | $\top$ | 1   |  |            | $\dashv$ | $\dashv$ | 7         | ᅥ         | $\neg$   | $\dashv$ | 十        | 十        | _ |
|  |          | 50  | -        | _            | $\vdash$ | $\vdash$       | 1        | $\vdash$   | $\vdash$ | $\vdash$        | $\vdash$       | $\vdash$ | 100 | $\vdash$       | $\vdash$ | $\vdash$ | _          | - †        | $\dashv$  | $\dashv$  | +-     | 1   | <b></b>  | 150        | $\dashv$ | $\dashv$ | 7         | $\neg$    | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | _ |